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SECONDARY TRAUMATIC STRESS, CULTURE AND STIGMA: BARRIERS TO SELF-INITIATED CARE IN THE MILITARY MENTAL HEALTH AND SPIRITUAL CARE PROVIDER POPULATIONS

by

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Introduction

A military mental health provider explains to colleagues that he is retiring early at the height of his training and experience, because he has reached an emotional limit trying to help warfighters in Iraq deal with comrades who disappeared forever in a fiery red cloud of blood and smoke. Similarly, a military chaplain, trying heroically to maintain professional bearing and privileged communication, struggles to explain to peers he is eschewing the years of specialized training and valuable experience to return to civilian life because he can no longer manage his downward emotional spiral from too many funerals, broken marriages, and counseling sessions without any way to stop the nightmares, the suffering of his family, and his intense, emotional pain. With the United States engaged in combat operations since 11 September 2001, the number of military personnel exposed to the extreme trauma inherent to warfare and the compounding effects of repeated deployments have increased exponentially, making the role of spiritual and mental health professionals invaluable in the care of the nation's warfighters. Indeed, caregivers have been actively and productively engaged long before the attacks of 9/11, having provided mental health and spiritual care to military members and their families continuously since 1991 through such operations as the first Gulf War, Provide Comfort, Northern Watch, and Southern Watch. With the public, national leadership, and the military services taking an active interest in providing available, appropriate post-deployment mental, spiritual, and emotional care to warfighters and dependents, the pressure is on military providers to perform with commitment and excellence. However, a significant issue remains largely underexplored in confronting the effect of repeated secondary traumatic stress on military caregivers such as mental health providers and chaplains. While delivering quality care and counseling to traumatized Soldiers, Sailors, Airmen, and Marines, the effects of war also impact

care providers who walk the journey of healing with clientele struggling with the personal and professional consequences of wartime service. As a matter of force health and force protection, it is imperative to understand and respond to the effects of wartime stress on military care providers, and deliver a robust system of care for the caregiver. The following paper investigates the nature of Secondary Traumatic Stress (STS) and Secondary Traumatic Stress Disorder (STSD) in the care provider population and how public, military, and professional cultures promote stigma that prevents care providers from initiating self-intervention. To conclude, predictive instruments to include self-assessments, behavioral cues, and biomarkers are reviewed for value as potential preventative measures against STSD outcomes. Finally suggestions are explored for increasing self-initiated intervention in mental health and spiritual care providers through the leveraging of cultural traditions and beliefs to include a recommended course of action for intervention.

Secondary Traumatic Stress in Care Providers

Before investigating the cultural stigmas that deter care providers from seeking care for STS, it is prudent to articulate the reality of STS and STSD as real phenomena experienced by military mental health professionals and chaplains. In fact, discussion of prolonged exposure of care providers to the relational demands of their professions and a concomitant experience of psychological strain has existed since the 1970s.[1] The experience of psychological strain occurs largely because counselors and chaplains care about the people who share their intimate stories and experiences of suffering and pain, often leading to an empathic sharing of the same feelings by the care provider.[2] Such transmission of trauma is largely accepted among scholars and clinicians as Secondary Traumatic Stress (STS) and is considered a normal outcome for care

providers "resulting from knowing about a traumatizing event experienced by a significant other – the stress resulting from helping or wanting to help a traumatized or suffering person."[3] The syndrome associated with STS, or STSD, has virtually the same symptoms as Post-Traumatic Stress Disorder (PTSD).[4] Sometimes described as "compassion fatigue," STSD mimics PTSD and includes symptoms such as avoidance, hypervigilance, exhaustion, and emotional numbing.[5] As the primary care providers to psychologically, emotionally, and spiritually wounded warfighters, military chaplains and mental health providers are singular focal points for collecting their intense, traumatic experiences. Unfortunately, there is very little scientific literature exploring STS in military caregivers. The vast majority of research is devoted to the effect of STS on civilian practitioners. However, the daily operations of chaplains and mental health providers, which can include multiple interventions across a range of intensity, at a minimum parallel those of civilian practitioners experiencing STS. As such, the evidence points to a concomitant occurrence of STS in the military provider population. Considering the ever increasing number of military members engaged in deployments and combat operations since 9/11 and the inevitable, parallel increase in counseling contacts of military spiritual and mental health providers, the emotional and psychological costs of caring can be significant in the military provider population.

In fact, recent research indicates that STSD among care providers can result from both cumulative exposure to traumatized clientele and more significantly, as a result of "microtraumas." In a 2006 review of scholarly research conducted by no less than five independent teams, researchers noted significant statistical evidence proving the amount of exposure to the traumatic experiences of clientele increased the probability that providers would experience STS.[6] In addition, they found the increase was directly related to the number of

hours spent with traumatized clients, the caseload of the providers, and their cumulative exposure.[7] Similarly in a 2010 review, researchers discovered that symptoms occur not only as a factor of a single, serious traumatic event, but also as a "series of non-catastrophic or non-life threatening events" dubbed as "microtraumas."[8] While milder than typical PTSD-generating events, these repeated, multiple experiences over a prolonged period of time can result in the same symptomology as PTSD to include fear, intrusive thoughts, sleeplessness, hypervigilance and decreased functioning.[9] Notably, it is a matter of routine for military chaplains and mental health care providers to conduct multiple weekly, if not daily, personal-level counseling sessions for a clientele whose issues are specific to the consequences of warfighting, multiple deployments, and high-tempo combat and combat support operations. Considering the recent research, military professionals providing spiritual and mental health care to military members are at high-risk for experiencing STSD sometime during their careers.

As might be expected, the research findings imply STSD in military mental health providers and chaplains can have both a real and negative impact on not only the personal well-being of the care provider, but their competency and ethical behavior as well. This does not suggest that all military care providers who experience STS will exhibit negative coping skills that have an adverse impact on patient care. However, research indicates that negative coping and negative capacities do occur in a significant number of care providers experiencing STSD. For example, in a recent study of 271 mental health social workers experiencing STS who were exposed to traumas from fatal and non-fatal suicidal clients, 37.2 percent expressed negative coping behaviors.[10] Of these negative coping behaviors, increased alcohol use was listed as the most common behavior along with isolation, overeating, smoking, and uncontrolled eruptions of anger.[11] Additional research into disruptions in self-capacity (specifically of vicariously

traumatized providers) indicated sufferers of STS can experience compulsive avoidance, intolerance for the emotions of others, hypersensitivity to highly emotional circumstances, and disconnection from people in both personal and professional circles.[12] As an additional disconcerting factor negatively impacting both providers and their clientele, the symptoms of STS and vicarious trauma can be masked by numbing or more significantly for military providers who are encouraged to express an ethic of selfless service, by deeper immersion in the care-giving workload.[13] Indeed, research shows that caregivers with exaggerated and idealistic dedication are the most likely providers to experience an unethical, dangerous over-involvement with clients.[14] Furthermore, with negative attitudes to work, others, and self, impaired counselors often are reluctant to admit problems or to look for solutions to personal and professional malfunctioning.[15] Such symptomology can lead to ethical violations, largely unintentionally, to include over-involvement or withdrawal from clients, deviation from professional standards, or an abnormal desire to terminate counseling cases early, all in an effort to meet the provider's personal/emotional needs.[16] While there is little or no research specific to military caregivers, the overall research correlating incidence of STS, subpar performance, and ethical violations in the civilian mental health provider population points to a potential, serious impact on the quality of care provided by untreated military spiritual and mental health professionals.

Taking the results of the research in hand, it is clear that military mental health care providers and chaplains, adhering to culturally mandated codes of self-sacrifice infused in their service organizations, are particularly susceptible to STSD. The result is not only a health threat to a highly trained and experienced military care provider population, but to the very military clientele they serve. The cumulative effect of secondary trauma coupled with the long term

impact of microtraumas position military caregivers to experience a subtle erosion of personal and professional capacity that can rob their ability to assist self and clientele to heal, recover, and make meaning of armed conflict's large and small traumatic experiences. It makes sense then that care providers receive focused and dedicated training and resourcing in self-monitoring, as well as safe and readily available intervention options when signs of STS appear. However, there are barriers to such care, the worst of which is the existence of stigma as an inherent part of the national, military, and care-provider professional cultures.

Cultural Stigmas to Self-Initiated Care

Having established the reality of STSD and its potential to negatively impact military chaplains and mental health providers, it is important to understand how cultural values, beliefs, and norms contribute to a stigma that inhibits providers from seeking the mental health care necessary for their personal and professional well-being. At the highest level of cultural stigma in the United States, popular culture continues to believe, stereotype, and stigmatize mental health disorders as dangerous and violent conditions experienced largely because of the weakness of the sufferer.[17] Indeed, literature on public beliefs concerning mental health disorders indicates the existence of pervasive belief systems with very negative views of mental illness including affliction as a product of personal irresponsibility or inability to care for self, fear of the afflicted, a desire to restrict the mentally ill, and beliefs that the afflicted are naïve and childlike.[18] Further research suggests that popular culture feeds an inaccurate understanding of mental health and advances stigmatization through media presentations of the mentally ill as abnormal, aggressive, and dangerous people while treatment is melodramatically exaggerated and presented in less than an ethical light.[19] Such stereotyping results in adverse and inaccurate

labeling and categorizing of people and often leads to prejudice and discrimination.[20] Concerning individuals with PTSD which in large part includes combat veterans and other military members, a recent study of public attitudes toward those with major depressive disorders indicated that nearly 50 percent of the general public would distance themselves in social situations from affected people.[21] Clearly, the national culture places a strong stigma on mental health issues which can influence military members, including chaplains and mental health providers suffering from STSD, to avoid seeking mental health care for themselves.

Adding to the negative impact of popular culture, the organizational culture of the military services stigmatizes military spiritual and mental health providers, inhibiting self-initiation of mental health care for symptoms of STSD. As an intense creator of organizational identity in all military members, the influence of military culture cannot be underestimated in its sway over how and when military members decide to seek mental health intervention. At a basic understanding of cultural influence, author Edgar Schein defines the culture of organizations such as the military services as "a pattern of shared basic assumptions by a group as it [solves] its problems of external adaptation and internal integration, which has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems."[22] Organizational culture, therefore, establishes a foundational identity and a capability for the military services to deal with survival and adaptation to their external environments and an ability to integrate their internal environments to adapt to daily operations.[23] Thus, military organizations establish foundational identities through a set of assumptions that work to guarantee their survival and maintain unity and integrity in the face of the relentless popular and political pressure to win America's wars.

Because of the enormous pressure to succeed for the sake of the national defense, the military organizations work to guarantee each of their members embody the norms, traditions, and values that ensure their success. At the highest organizational level, each of the military services teaches an essential set of enduring core values that guard and guide the personality and activity of the organization. This organizational identity and culture is passed to new members who are taught and expected to identify with its values and blend seamlessly into the social structure of the organization.[24] For example, on its public information website, the Air Force presents its core values (integrity, selfless service, and excellence) as its essential unifying principles: "Whoever you are and wherever you fit on the Air Force team, the Core Values are what you will live by and learn to cherish. The Core Values are much more than minimum standards. They remind us what it takes to get the mission done. They inspire us to do our very best at all times. They are the common bond among all comrades in arms, and they are the glue that unifies the Force and ties us to the great warriors and public servants of the past."[25] Further down within the organization at the grass roots level, regular members and supervisors, often revered by newcomers as "old timers," inculcate and reinforce the critical values, beliefs and assumptions of the organization through formal and informal means at a very one-on-one, personal level.[26] In the case of the Air Force, the inviolability of the core values imparts on its membership a calling to perfection, self-sacrifice, and personal reliability the breach of which can realistically lead to a loss of identification and ostracization from the group. As such, military care providers are deeply indoctrinated into a high cultural calling and expectation of personal sacrifice and personal excellence which generates reticence to seeking personal self-care in the face of STS.

Indeed, the cultural assumptions of military members concerning perceptions of weakness, poor performance, and lack of reliability can cause significant stigma in regards to self-identification for mental health intervention. A plethora of research has adequately documented the existence of stigma to mental health care within the military organization's membership. The stigma arises in a process known as 'self-stigmatization" where the distressed military member, acculturated to both national and organizational beliefs and values, internalizes those beliefs in a way that inhibits self-initiated mental health care.[27] Considering the necessity of military culture to produce combat ready and hardened warfighters, it comes as no surprise that military culture indoctrinates its membership in attitudes and values that include self-reliance, mental and emotional toughness, commitment to mission success, and group integrity.[28] Such beliefs contribute to both an institutional and personal, self-stigmatizing military mind-set that considers members who seek mental health care as weak and those who hold to the institutional values as strong, tough, and self-sufficient.[29] The member's self-stigma matches the existing stereotypes resulting in the internalization of beliefs about the self that include a loss of value, feelings of personal weakness, low self-esteem, and low sense of personal competency.[30] In fact, the more a military member validates the views of public and military culture, the more likely that member will experience a strong self-stigma to mental health intervention.[31] Indeed, in a 2004 study of Iraq and Afghanistan combat veterans, of those members screened for major depression, generalized anxiety, and PTSD who met clinical criteria for intervention, only 23-40 percent sought help from a mental health provider.[32] Researchers noted that "concern about stigma was disproportionately greatest among those most in need of help from mental health services" and correlated the resistance to care with military members' concerns about the perceptions of other organizational members including peers and leadership.[33] In a 2006 study

of Air Force members and mental health care, a review of the literature revealed a stigma-corroborating tendency for members to refuse self-initiated care due to significant concern over career impact.[34] Additionally, a survey of symptomatic military members revealed a belief that they should deal with problems and symptoms personally rather than seek out professional treatment, doubting that such treatment would have a positive impact on their conditions.[35] In light of the heavy emphasis the military places on core values, it comes as no surprise that military members experiencing mental health issues would eschew any self-identification or self-initiation of mental health intervention. As members of the military profession, chaplains and mental health providers are vulnerable to the same cultural pressures and self-stigma when experiencing the symptomology of STSD.

Any study of cultural impact on stigma and barriers to self-initiated care for military mental health providers and chaplains must also take into account the subcultures of the medical/psychiatric and religious professions. Though the military as an organization exists as a unique macroculture which acculturates its membership into the identity of the larger structure, the military also contains subcultures that define their unique membership through shared assumptions and values, indoctrinating those members into an identity established on the foundation of those assumptions, values and skills.[36] While chaplaincy and mental health care are long-established professions within the military culture, there is surprisingly little research information on the impact of their professional subcultures on self-stigma and the experience of STSD. Yet, one can make a case that with the very high spiritual calling of chaplains, and the commitment of mental health professionals to a profound calling to patient care, there is a potential for self-stigmatization when encountering personal effects of STSD. In the case of chaplains, as highly regarded spiritual leaders of military faith communities and experts on the

life-issues that affect the spiritual and military organization they serve, it seems likely that any admittance to a personal struggle may be viewed as weakness and a personal failure to apply the very principles being taught to the community. In other words, the experts' expertise comes into question because they cannot, themselves, overcome their personal suffering by applying their own skill in a "physician, heal yourself" model.[37] In support of such a view of stigma, research indicates that people with concealable stigmas, such as members of faith communities, may engage in what researchers call "label avoidance" or the conscious refusal to pursue mental health care for fear of prejudicial or discriminatory treatment by the community to which they belong.[38] Other research indicates that clinicians and mental health professionals fail to seek assistance because of confidentiality issues inherent to their professional ethics.[39] The confidentiality issue is certainly possible among military mental health care providers who exercise limited confidentiality and unquestionably with military chaplains who are required to exercise absolute privileged communication with clientele as a matter of both inviolable sacramental/ordinal tradition and military policy. As such, current, limited literature on the subject of professional culture must take into account the willingness of chaplains and mental health care providers to identify themselves as suffering from STSD symptoms or their willingness to seek care. Clearly, focused research is needed to answer how professional subculture affects self-identification of STSD symptoms and the seeking of mental health intervention.

Potential for Prevention

In light of over a decade of continuous combat deployment of American military personnel, the increasing number of veterans reporting symptoms of PTSD and the real potential

for STSD-affected military spiritual care and mental health providers, it seems prudent to aggressively pursue avenues to predict traumatic stress in the military population with a goal of preventing psychological casualties. Unfortunately, little if any research has been dedicated to STSD in military care providers, let alone to predictive instruments for the condition. Despite the lack of focus on STSD, research into predictors of PTSD may prove informative for STS prevention methodologies due to STSD's close association with the better known condition. As such, significant research efforts have been directed toward predicting the occurrence of PTSD both in civilian and military populations to include the use of screening assessments, measurements of biological response to stress, and analysis of biomarkers. In light of the extraordinary influence of cultural beliefs and stigma on self-initialized care for military care providers, each method requires evaluation for validity in providing accurate predictive and preventative capacity for STSD.

As perhaps the most studied, executed and evaluated means for predicting the psychological behavior and stress response of potential and serving military personnel are psychological screening evaluations for entry level military candidates. If viable, such predictive screening tools could radically reduce the incidence of traumatic stress disorders prior to military accessioning, preventing psychological casualties and focusing the Nation's resources on the most psychologically resilient personnel. Of particular interest, screening instruments utilized to predict psychological success for high-stress, high-intensity military career fields such as Special Forces operators and sniper teams suggest potential use as screening tools for military spiritual and mental health specialists entering military service. In one such example, a 2005 small-scale Canadian Forces trial of a psychological screening program to select sniper candidates employed a multi-method approach including a self-assessment tool, cognitive ability test, service file

review for negative psychological indicators, police background check and personal interview.[40] Upon initial examination, the results indicate a positive predictive correlation between candidates identified as psychological risks and ability to successfully complete the intense course of training and accession to the sniper career field.[41] However, because of the high dependency on technical skills required for sniper teams, the technical qualification portion of the course produced a high washout rate, potentially skewing the results.[42] In addition, the study was predictive only of short-term success in completing the rigorous and stressful sniper candidate course, not long-term psychological resiliency during and after repeated operational employments under the stresses of actual combat environments. Likewise, a 2008 study of US Army Special Forces (SF) candidates sought to demonstrate a correlation between psychological hardiness and successful assimilation into the Special Forces. Using a 45 question Dispositional Resiliency Scale (DRS) hardiness self-assessment of 1138 candidates, researchers discovered graduation rates were higher for individuals with higher DRS scores.[43] Like the Canadian trial, the Army SF study was predictive of psychological capacity for course completion only, and not for psychological success over time or upon repeated exposure to traumas associated with operational employment. In fact, the Army research team noted that past efforts to predict successful assimilation into specialized, high-stress military career fields using psychological indicators have been largely unsuccessful, suggesting that their own DRS hardiness tool provided only modest predictive ability.[44] In reality, psychological assessments, long used by the US Armed Forces to predict the psychological stability of military personnel and their ability to withstand the traumatic stress associated with combat employment, have a sketchy history at best. Indeed, in a 2003 seminal review of the history of psychological screening accomplished by the US and UK militaries from WWII through the conflicts in Bosnia and Kosovo, Edgar

Jones, et. al note that such screenings largely failed for both nations as predictors of stress reaction.[45] While science has surely advanced since the initial testing of the mid-20th century, and some methods proved fairly effective in disqualifying personnel with clear-cut clinical, psychological diagnoses and in predicting graduation rates for recruits of various military career fields, the same is not true for predicting psychological disorders such as PTSD.[46] Because of a multiplicity of key variables which are unknown quantities at time of recruitment such as the effects of leadership, unit morale, intensity of battle, preparedness, and others, predictive quality for traumatic stress reaction is largely untenable.[47] Furthermore, research found many personnel disqualified by inaccurate psychological screening tools but allowed entry to the military services during manning crises proved psychologically resilient to the stresses of combat in contradiction to the past predictive assessments.[48] As such, the value of psychological screening instruments predictive of stress reactions for entry-level military spiritual and mental health care providers is questionable barring advances in research that can increase reliability and control the highly variable factors associated with traumatic stress disorders.

Beyond predictive screening of military candidates, psychological screening assessments of serving military personnel also show difficulties in predictive value due to stigma bias in the use of what are largely self-assessments of psychological resiliency. In a 2002 study of British military personnel, a large sample group (N=2873) was randomly selected to complete a self-assessment of psychological health prior to the start of the Iraq war.[49] In a follow-up study of the same group (N=2820) which included members who both deployed to Iraq and those who did not, the resulting ratios of likelihood for psychological problems (including PTSD) pointed to a minimal value for predictive capacity.[50] Indeed, considering the results, researchers concluded "it would be unwise to implement a screening programme [sic]" given the unsatisfactory results

of the study and the potential to reinforce stigma and negatively impact morale of the force.[51] Furthermore, a 2004 study of 4,500 British military personnel from three different services given standardized self-assessment questionnaires predictive of psychological health and PTSD symptoms indicated that such approaches are fatally flawed by stigmatized personnel who are unwilling to honestly share highly personal, psychological information within a military organization with competing interests to care for people on the one hand, and protect the integrity of the organization on the other.[52] Considering the potential for strong self-stigma within US military behavioral health and spiritual care providers, self-assessment tools would appear to have marginal value in predicting or preventing traumatic stress. In fact in 2011, researchers conducted a study of US Air Force Chaplains to determine the effect of deployment stressors and war zone counseling on the resiliency of military spiritual care givers. 183 chaplains who had experienced at least one deployment responded to an on-line self-assessment questionnaire intended to measure the rate of PTSD (STSD) within the Air Force Chaplaincy population.[53] Results of the study indicated a low, but measurable rate of compassion fatigue (STSD) and PTSD but also a high rate of posttraumatic (positive) growth from intense counseling and warzone pastoral care efforts.[54] Yet, the study suffers from a serious limitation in that it did not account or adjust for the strong influences of self-stigma and belief systems. In fact, because there were no controls for stigma or cultural bias in the respondents, the results could simply reflect strongly held convictions within the clergy culture pointing to a belief that spirituality mitigates the effects of traumatic stress and empowers intense emotional pain and suffering to evolve into positive psycho-spiritual growth. Therein lays the flaw of all self-assessment instruments: potential bias in the responder. With a strong stigma against self-reporting of psychological problems, strongly held cultural beliefs that favor resiliency and

personal strength, an all-volunteer force that wants to serve and fears losing both employment and face, any attempt to predict traumatic stress outcomes is fighting an uphill battle against an intense bias. Because of the bias, self-assessments and psychological screening are extraordinarily limited if not entirely ineffective in determining propensity to an STSD/PTSD outcome.

Additionally, little if any research has considered the second order effects of psychological assessments on morale of military members or the incidence of stigma to mental health care among the armed forces. As research has shown over and again, the military culture, informed by a national cultural stigma against mental health care, suffers from a wide-spread unwillingness to seek intervention for mental health issues. With the added effect of stigmatizing sub-cultural beliefs and values within the spiritual care and mental health professions, it is likely that self-assessment will only reinforce self-stigma and further inhibit self-initiated mental health care among military care providers suffering from STS. As Jones, et al. suggest, screening may have a deleterious effect on the military member's self-perception, leading an otherwise healthy person to conclude they are psychologically unqualified to serve.[55] Considering the possible side-effects of the approach and the limitations of self-assessment-driven psychological screenings to effectively predict onset of traumatic stress disorders, such approaches appear to have very limited positive value in predicting traumatic stress, and very real potential to exacerbate existing stigmas. Rather, methodologies that remove subjective inputs colored by stigma and cultural belief in favor of evaluation of objectively measurable biological indicators and biomarkers offer a potentially more effective means for predicting and preventing STSD in military spiritual care and mental health providers.

In recent years, significant research has been devoted to understanding the correlation between traumatic stress (PTSD) and biological responses including heart rate, skin conductivity and cortisol levels that provide possible prediction/preventative benefits to the armed forces. For instance, building upon research conducted in 1996 by Blanchard, et al., researchers in 2010 studied a small group (N=107) of women exposed to severe trauma for correlation of heart rate (HR) and skin conductivity (SC) to the potential for chronic PTSD.[56] Results of the study appear to confirm previous research efforts, indicating that individuals with heightened HR and SC upon experience of self-generated trauma monologues which continue after the cues are no longer present are at greater risk for chronic PTSD.[57] However, in a separate 2007 study of Canadian first responders, measurements of HR and stress-induced release of cortisol showed no correlations with exposure to trauma or to traumatic stress symptoms.[58] Rather, the study suggested that repeated, cumulative traumatic exposure was a greater indicator of traumatic stress disorder.[59] In a thorough review of the literature on the use of HR to predict susceptibility of military personnel to PTSD, Chung et al., indicate that while results of previous research are not in complete agreement on the correlation of HR to PTSD, the evidence is strong for a positive association in the majority of research literature.[60] Remarkably, in proposing a methodology using HR to predict PTSD, the study team identifies as its key weakness the complex nature of PTSD, commenting that HR is unlikely to be a satisfactory independent prediction tool.[61] While research points positively to a potential means for predicting traumatic stress disorders, additional inquiry is need to confirm or deny biological response indicators like cortisol production, HR and SC as accurate, objective predictive measures. Until then, such indicators are not useful for the mitigation and/or prevention of STSD among military care provider populations.

As another means of removing the bias incumbent to psychological screening and self-assessment tools, evaluation of genetic biomarkers and their relationship to the onset of PTSD/STSD offer a potentially potent tool for predicting traumatic stress disorders in military chaplains and mental health providers. For example, in a 2011 study of females (N=64, replication N=74), researchers found a gender-specific association of pituitary adenylate cyclase-activating peptide (PACAP) blood levels related to the genetic expression of locus *ADCYAP1R1* to the symptoms and diagnoses of PTSD, though research has not yet revealed the role of PACAP in the stress response.[62] In another 2011 study of *MAN2C1* gene locus, researchers discovered an epigenetic change associated with increased risk of lifetime PTSD.[63] Referring to the regulation of gene expression, epigenetic theory suggests that outside stimuli can moderate the effects of certain genes.[64] As such, gene-environment interactions may indicate that persons with a particular genotype might be more susceptible to mental health conditions including PTSD and STSD.[65] If so, the identification of genetic and epigenetic loci related to onset of PTSD/STSD offer the armed forces a significant tool in reducing and even preventing the onset of traumatic stress disorders in all military members, not just military care providers. In addition to the above markers, a review of research by J. Andrews and K. Neises summarized the role of peripheral blood mononuclear cells (PBMCs) and biomarkers to the onset of PTSD.[66] Research shows that PBMC numbers increase with PTSD symptoms, resulting from changes in gene expression.[67] At the experience of a traumatic incident, a biochemical chain of events occurs within an exposed individual resulting in PBMC activation, inflammation, death of central nervous system (CNS) cells, and hippocampal volume loss, ultimately leading to the neurological symptoms of PTSD.[68] According to the review, inflammation and CNS cell death are already implicated in other CNS diseases such as Parkinson's, Alzheimer's, and multiple

sclerosis, and as such may be associated with PTSD as well.[69] In addition, the study reviewed eight other potential biomarkers for PTSD, suggesting that a combination of biomarkers affect PTSD symptoms rather than a single locus.[70] If epigenetic research holds true and environmental factors like traumatic experiences and microtraumas possess potential influence over gene expression, then environmental exposure becomes a difficult to predict variable complicating the use of gene loci as predictive measures for traumatic stress disorders. Consequently, additional research on the influence of biomarkers, epigenetics and gene expression must be accomplished before any accurate, reliable screening tool is possible to predict and mitigate the occurrence of PTSD and STSD. Furthermore, since all of the research to date is concerned with PTSD, additional research specific to STSD must be accomplished to confirm any connection between biomarkers and the disorder.

As a further complication, military leadership must consider the ethical question of applying genetic screening to its military forces prior to initiating a screening program that excludes individuals based solely on their genotype. Though the armed forces regularly and rightly disqualify individuals who are physically incapable of meeting the strenuous requirements of uniformed service, it is wholly different to exclude healthy individuals based on a genotype that may or may not ultimately result in a psychological disorder. Since the advent of research to map the entire human genome, markers for numerous diseases have been discovered. Approaching the ethical question directly, if the military can exclude individuals by genotypic potential for PTSD/STSD, then the same practice can be applied to other potential latent diseases such as cancer and heart disease, among many others. Furthermore, quite the converse can be applied, providing a means to screen for only the most genetically hardy individuals. Additionally, if research into psychological screening assessments indicates an exacerbation of

stigma, then genetic screenings are likely to cause the same reaction in military candidates and serving personnel. Finally, considering the past history of the value of assessments, the military must consider that genetic screening may remove perfectly capable and potentially exceptional candidates rather than the intended targets. While biomarker screening appears to resolve the problems of bias in psychological self-assessments and provide simple solutions to mitigation of PTSD/STSD risk among military personnel, the consequences of a public backlash against genetic selection are likely to be significant. Beside additional research into the biological mechanisms for traumatic stress disorders, a thorough evaluation of the ethical risk of such screening tools must be accomplished before the military implements a biomarker screening program to predict and prevent PTSD/STSD in its military care provider populations.

In final review of the potential methods for prevention of STSD in military mental health and spiritual care providers, candidate screenings, self-assessments, biological response indicators, and biomarkers are all fraught with flaws and problems. Much additional research and resource investment are required before reliable, accurate, ethically acceptable screening tools are available to assist the armed forces in mitigating PTSD as a whole and STSD in care providers specifically. Certainly, the realities of cultural influence, stigma, and bias make self-assessments an inaccurate and flawed approach to screening individuals susceptible to traumatic stress disorders. The variety and complexity of biological response indicators, environmental variables involved in epigenetic theory, and the array of biomarkers potentially involved in PTSD response point to a truth that PTSD and STSD have complex roots that are a unique blend of individual experience, biological processes, and environmental stimuli. As such, the pursuit of a diagnostic tool may be years if not decades in the making, if the riddle can ever be solved. If the armed forces' unsuccessful history of screening to factor out psychologically unfit

manpower holds true for the future, then the pursuit may be in vain. Furthermore, the current emphasis by the military and the scientific community toward prediction and prevention itself is likely a product of an ever-increasing societal proclivity toward risk aversion.[71] As an organization that inherently understands and accepts the risks of combat, the military must exercise extreme caution when weighing acceptable versus unacceptable psychiatric risk for its members so it does not fall into the trap of a precautionary approach which may only enhance anxiety rather than reduce it.[72] If anything, the military as an organization knows best after centuries of defending the Nation's interests that exposure to the effects of warfare will produce negative psychiatric outcomes in a certain proportion of its members. As Jones, et al. suggest in their historical review of 20th century military use of psychological screening, surveillance and the successful implementation of treatment programs may provide the greatest overall value to the military.[73] Certainly, as experts in the management of warfare and its effects, the armed forces have the skills necessary to provide appropriate medical intervention programs within a cultural climate that aggressively confronts stigma, promotes trust, and encourages member self-identification for mental health care.[74] While continuing the aggressive pursuit of scientific research into the causes of traumatic stress disorders, confrontation and mitigation of the problem of stigma and its origins in national, military and professional culture seem the best means for successful prevention of STSD in care providers.

Recommendations

Exposed to repeated traumas and microtraumas that lead to STSD while embedded in national, organizational, and professional cultures that enhance self-stigmatization, solutions to maintain a robust, vibrant mental health and spiritual care system in the military community are

absolutely necessary for the well-being of the armed forces. Considering alone the cost to the nation in time and resources to train an experienced cadre of care providers and the invaluable experience they bring after 10 years of ongoing conflict, an officially sanctioned, focused and resourced approach to care for caregivers experiencing STS is urgently needed. With cultural beliefs and acculturation as the significant elements in self-stigmatization, any serious attempt by the military to reduce stigmatization must focus on cultural beliefs, norms, values and practices in the three cultural areas that effect military spiritual and mental health providers. Therefore, military leadership should consider changes and enhancements to current practices in order to enable providers to seek the care necessary for their personal and professional well-being.

Beginning with the effect of national or popular stigma pertaining to mental health care, it is a significant challenge to military organizations to counter the broader, popular stigma associated with mental health care. Research suggests that any attempt to remove self-stigmatization at the individual level must work in concert with efforts across the broad cultural spectrum of stigma, especially the public's role at the national level.[75] However limited military influence over national culture might be, with a significant public affairs apparatus at its disposal, military leadership has the tools available to help mitigate stigma by telling the story of the indispensable work of chaplains and mental health providers in the care of our nation's warfighters. In the case of the Air Force, it can leverage its very public recitation of the core values by describing the integrity, self-sacrifice, and excellence of its care providers and the reality of the pressures they bear in ensuring the health and welfare of the men and women who defend the nation. To accomplish the task, the Air Force, and other services, must confront their own service identities. For the Air Force, it must consider its heavy emphasis on and pride in its technological prowess and its operator-based culture.[76] While absolutely necessary for the

successful prosecution of the nation's defense, such a culture lends to a two-tier hierarchical structure that places pilots and operators above all other career fields represented in the organization.[77] Considering that public stigma has a filter-down effect on self-stigmatization, by elevating care providers in the national rhetoric on value, service, and sacrifice, the military services can at the very least emphasize and normalize the sacrificial nature of mental health work and chaplaincy.[78]

In addition, military organizations, through their public affairs information instruments, can mitigate stigma through a public education campaign focused on truthful elaboration of STS as a normal response to the abnormal conditions of armed conflict. Indeed, researchers suggest military organizations decrease negative societal stigmas by leveraging public media to provide accurate explanations of the etiology, treatment, and control of mental conditions suffered by military members.[79] A perfect example of a military leadership-led public destigmatization campaign is a recent interview conducted by the Army Vice-Chief of Staff. In the interview, General Peter Chiarelli called for a name change of PTSD as a mental health "disorder" to an "injury" for the express purpose of destigmatizing the condition and enabling more soldiers to seek help.[80] While there is resistance to a reclassification of the terminology among civilian mental health professionals, there is also acknowledgement of the unique stigmas attached to mental health care by members of the military.[81] Military leadership can and should continue to apply pressure to public perceptions through emphasis on not only the unique conditions effecting warfighters, but also the very specific roles spiritual and mental health care providers play in the organization and their need for their own unique care following traumatic exposure. Thus, applying the same effort to the incidence of STSD among chaplains and mental health care providers, "Secondary Stress Disorder" could be renamed to "Secondary Stress Injury" to

promote normalization of the condition and enable greater help-seeking behavior among care providers. As a consequence, at the national, cultural level, the military can confront and mitigate the stigma preventing care providers from seeking and finding the personal care necessary to maintain and restore their personal and professional skills.

As important as public perception of mental health is to military stigma against mental health care, the military culture itself is even more critical in decreasing negative stigma among care providers suffering from STSD. As the caretakers and instructors of the traditions and core values of their respective organizational cultures, the military services, as mentioned previously, infuse their memberships with the identities and beliefs that enable them to conduct violent, traumatic combat operations in defense of the nation. Indeed, qualitative research suggests that the cherished beliefs and values of military organizations are enablers available to leadership in the struggle to overcome self-stigmatization and empower military members to seek mental health services.[82] As such, the military cultures have the ability to leverage tradition and inviolable values to motivate men and women to action. Thus, the traditions of military culture themselves can be a tool in the arsenal of military leadership in reducing stigma against mental health care, especially for its care providers. For example, the Air Force, in citing the origins of its defining core values, recalls the "great warriors" of its historic past.[83] Among those great warriors were the pilots and crews of the strategic bombing campaign of World War II (WWII), who experienced intense stress and trauma in their part to secure victory in the European Theater of Operations (ETO).[84] By 1943, military command and medical leadership recognized the universal effect of combat stress on crews, engaging in an active campaign to end the stigma associated with emotional breakdown, and normalizing the experience as a "natural" consequence of air combat in the ETO.[85] Indeed, military leadership intentionally chose

terminology that deemphasized and destigmatized stress response as a mental health disorder, instead choosing identifiers that harkened to a sense of physical strain intended to communicate to the aircrews that they were not weaklings who had failed in their duties, but were injured in the line of duty and were capable of recovery.[86] The ideological shift in culture with Air Force leadership led to a highly successful, pragmatic response to treat aircrew members through placement of flight surgeons within squadrons, prevention programs, and six to eight-day stays at recovery facilities away from the stresses of operational duty.[87] By leveraging the strong traditions and historic lessons of the past, the military organizations of today can alleviate stigma concerning STSD with the unique population of mental health and spiritual care providers in a similar way.

The first and most basic step available to military organizational and medical leadership is to normalize and codify within the organizational culture the reality that STS and the effects of microtraumas are normal responses to the ongoing counseling of traumatized military personnel and their family members. As national leadership ends the conflict in Iraq and looks toward a future end of operations in Afghanistan, it is critically important that institutional knowledge and practice be preserved by codifying the normalization of STSD among mental health providers and chaplains in official policies, regulations and instructions. An exceptional step forward for military culture is the July 2011 update of Department of Defense Instruction 6490.06, which, among other positive amendments, advocates strongly for an elimination of negative stigma and barriers to seeking mental health care for all military members.[88] However, the document does not directly address care for care providers and the very unique and possibly intense stigma that they experience as the military services' singular mental and spiritual health resources. Additional codification is in order to ensure that care providers are empowered to overcome self-

stigma and find appropriate care. For example, the Air Force Chaplain Corps could introduce changes to its readiness policies and instructions normalizing STS as a matter of Chaplain Corps readiness, providing a structure for prevention and intervention. In another possible strategy that is both pragmatic and ideological in nature, in the tradition of the aircrew rest centers of the WWII ETO, military leadership could strengthen rules pertaining to permissive temporary duty for training (PTDY) allowances for chaplains and mental health officers, adding days specifically for professional-level STS training, care, and respite. In sum, normalization and codification demonstrate the cultural value of care providers while destigmatizing mental health care for chaplains and mental health professionals.

Military culture should also recognize the role of organizational "old timers" in the passing of critical values and cultural identity to its membership. For the military, the most important such figure is the lowest level supervisor. Indeed, recent research indicates that the principle means by which mental health providers overcome stigma and find help for traumatic stress is through their supervision, with family/friendships and clergy/religion in second and third place, respectively.[89] In military organizations, supervisors often are members of the same professional culture. For example, in the Air Force Chaplain Corps, most chaplains at the tactical level are supervised by a Deputy Wing Chaplain and Wing Chaplain supervisory chain of authority which is responsible for the performance reporting of their junior chaplains.[90] As such, in a military culture which demands absolute obedience to the lawful orders and direction of superiors, and in light of military cultural self-stigma that raises concerns about the career impact of mental health care, the chaplain experiencing symptoms of STSD is caught in a true dilemma. To illustrate, in a recent news article, an Air Force chaplain experiencing the symptoms of PTSD (or perhaps STSD) approached leadership for support in seeking help for the condition.[91]

Although some leadership was supportive of the chaplain's needs, at the height of his symptomology, supervision denied the chaplain support and assistance due to the stigmatic belief that chaplains are helpers, not those who need help.[92] Corroborated by research, mental health social workers have also reported incidents where supervision has placed undue pressure and blame on providers, rather than providing them support or helping them seek care during personal crises.[93] Additionally, researchers have shown that STS (with vicarious trauma and burnout) may be significantly influenced by work place stressors and negative experiences of support, though more research is needed to verify the connection.[94] It is likely that as the two prevalent spiritual/emotional care providers on a military base, chaplains and mental health providers will be stigmatized and unable to seek help from their own professions due to supervisory conflict of interest or perpetuation at the supervisory level of cultural stigma to care for the caregivers.

Consequently, military leadership should consider the effect of the supervisory chain on mental health providers and chaplains when establishing methodologies for overcoming stigma. First, leadership could require all supervisors, and especially mental health and chaplaincy supervision, to undergo training on DoD 6490.06 in order to understand the necessity of supporting and streamlining access to mental health care and counseling for care providers. In the age of near limitless internet access and broad use by the military of computer-based training, anti-stigma educational materials can be easily distributed at all levels of the military organization. In fact, research has shown that computer-based anti-stigma materials provided a substantial, positive change in participants' beliefs regarding mental health stigma.[95] Military leadership should further consider how to access aid for uniformed mental health providers and chaplains outside the internal organizations they represent, to avoid confliction over career

impact and stigma. Certainly, research shows that military members prefer non-uniformed resources when seeking mental health care intervention.[96] Of military members surveyed, only 1 in 20 desired to see a uniformed provider while 1 in 3 preferred to see a non-uniformed provider.[97] As such, leadership can explore options for enhanced military health insurance coverage and the leveraging of chaplain endorsing bodies and mental health professional organizations to provide specialized care and consultation that reduces stigma and promotes the health of the military care provider population.

Conclusion

In conclusion, STS as a phenomenon among mental health caregivers is a proven condition resulting in negative effects on care providers and on the clientele they serve. While much of the research available today deals with the civilian care provider population, the effect on military spiritual and mental health providers is certain. Though predictive screening tools and measures intuitively offer an appealing means to mitigate and prevent the occurrence of STSD, ultimately questions of efficacy and ethics in their use give greater importance to intervention and treatment programs. As a complicating factor in providing care to caregivers, cultural stigma at the national, military and professional levels stands as an impediment to self-identification of symptomology by military chaplains and mental health providers and inhibits their willingness to seek the professional care necessary to restore and accentuate their personal and professional capacities. Yet, the very cultural traditions and beliefs so critical to the military services' organizational identities are the means by which stigma can be overcome. The services can thus conserve the investment in their provider training and experience and regenerate an invaluable asset in the continuing care and readiness of the force. Clearly more research is

needed specific to the occurrence and effect of STS in the military chaplain and mental health provider populations and the role of culture on stigma in this unique subpopulation of the military. Through a focused research effort, and through education, normalization, and codification, the military branches have the opportunity to conserve their expert care providers and enhance their essential caring and healing skills for the most important elements in the nation's defense establishment: warfighters and their families.

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